a cover assembled with the monitoring element to at least partially enclose a portion of the body part within the receptacle ~~of the body part~~ and to establish contact between the plurality of electrical contacts of the monitoring element and the electrical contacts of the electrodes.

31. (Original) The interface unit of claim 30, wherein the monitoring element further includes:

at least one pressure port for controlling an amount of pressure applied by a pressurization component to the body part.

32. (Original) The interface unit of claim 30, wherein the monitoring element further includes:

at least one guide for facilitating proper orientation of at least one electrode over the receptacle.

Rule 124 33 ~~32~~. (Original) The interface unit of claim 32, wherein the at least one guide comprises a protrusion.

R.124 34 ~~33~~. (Original) The interface unit of claim 30, wherein the cover includes:

at least one pressure port for controlling an amount of pressure applied by a pressurization component to the body part.

R.124 35 ~~34~~. (Original) The interface unit of claim 30, wherein the cover is hingedly secured to the monitoring element.

R.124 36 ~~35~~. (Original) The interface unit of claim 30, wherein the cover includes:

a receptacle which is configured to communicate with the receptacle of the monitoring element upon assembly of the cover with the monitoring element.

R.124 37.

36. (Original) The interface unit of claim 30, further comprising:

a locking element for locking the cover in place relative to the monitoring element when assembled therewith.

R.124 38

37. (Original) The interface unit of claim 30, wherein the monitoring element has a width to facilitate substantially unstrained placement of a finger of the subject on a side thereof while another finger of the subject is at least partially positioned within the receptacle.

R.124 39

38. (Currently Amended) A system for noninvasively measuring hematocrit of a subject, comprising:

an interface unit including:

a monitoring element including:

a receptacle configured to at least partially receive a body part of a subject;

a plurality of electrical contacts configured to communicate with electrical contacts of electrodes to effect an electrical impedence measurement technique at the body part; and

a cover configured to be assembled with the monitoring element to at least partially enclose a portion of the body part within the receptacle of the body part and to establish contact between the plurality of electrical contacts of the monitoring element and the electrical contacts of the electrodes;

a current generator in electrical communication with at least two electrical contacts of the plurality of electrical contacts of the monitoring element;

a voltage amplifier in electrical communication with at least two other electrical contacts of the plurality of electrical contacts of the monitoring element; and

a processing element in communication with at least the voltage amplifier.

R.126 40

~~39.~~ (Currently Amended) The system of claim ~~28,~~ 38, wherein the processing element is also in communication ~~with~~ with, and is operable to control operation ~~of~~ of, the current generator.

R.126 41

~~40.~~ (Original) The system of claim 38, further comprising:

a pressure source in communication with at least the receptacle of the monitoring element and configured to provide a positive pressure within the receptacle for application to a body part therein; and

a pressure transducer for monitoring a pressure applied by the pressure source.

R.126 42

~~41.~~ (Original) The system of claim 40, wherein at least the pressure transducer is operably coupled with the processing element.

R.126 43

~~42.~~ (Original) The system of claim 41, wherein the pressure source is also operably coupled with the processing element.

R.126 44

~~43.~~ (Original) The system of claim 42, wherein the pressure source is operable under control of the processing element.

R.126 45

~~44.~~ (Original) The system of claim 40, further comprising:

a valve positioned between the pressure source and the monitoring element for controlling an amount of pressure delivered to the receptacle of the monitoring element.

R.126 46

~~45.~~ (Original) The system of claim 44, wherein operation of the valve is controlled by the processing element.

R.124 47

~~46~~. (Currently Amended) A pressurization component configured for use with a body part, comprising:

a bladder including ~~pair~~ a pair of walls with peripiheries mutually secured in air-tight fashion to one another; and

an inlet that comprises a conduit protruding from at least one wall of the pair.

R.124 48

~~47~~. (Original) The pressurization component of claim 46, further comprising a reinforcing base surrounding a base of the inlet and secured to the at least one wall.

R.124 49

~~48~~. (Original) The pressurization component of claim 46, wherein the bladder is elongate.

R.124 50

~~49~~. (Original) The pressurization component of claim 46, further comprising:

another bladder including a pair of walls with peripheries mutually secured in air-tight fashion to one another, interiors of the bladder and the another bladder in communication with one another.

R.124 51

~~50~~. (Original) The pressurization component of claim 49, further comprising:

a tube that establishes communication between the interiors of the bladder and the another bladder.

R.124 52

~~51~~. (Original) The pressurization component of claim 50, further comprising:

reinforcing bases at ends of the tube and secured to walls of the bladder and the another bladder.